Appendix B: Clean claims as pending

1. A method comprising:

   a) obtaining at least a first soluble anti-nuclease antibody;

   b) obtaining at least a second soluble anti-nuclease antibody;

   c) obtaining a composition; and

   d) admixing the anti-nuclease antibodies and the composition to form an admixture;

wherein nucleases that may be present in the admixture are inhibited.

2. The method of claim 1, wherein admixing is further defined as comprising mixing the first and second anti-nuclease antibodies to form a nuclease inhibitor cocktail and mixing the nuclease inhibitor cocktail with the composition.

3. The method of claim 1, wherein obtaining the first and second anti-nuclease antibodies comprises obtaining a nuclease inhibitor cocktail comprising the first anti-nuclease antibody and the second anti-nuclease antibody.

4. The method of claim 1, wherein the admixture comprises at least one nuclease.

5. The method of claim 1, wherein the admixture comprises RNA.

6. The method of claim 1, wherein the admixture is further defined as an *in vitro* translation reaction mixture, a transcription reaction mixture, a reverse transcription reaction mixture, or a coupled transcription/translation reaction mixture.

7. The method of claim 1, wherein the composition is a reagent used in molecular biology.

9. The method of claim 1, wherein the first anti-nuclease antibody is a polyclonal antibody.

10. The method of claim 1, wherein the first anti-nuclease antibody is an anti-ribonuclease antibody.

11. The method of claim 10, wherein the first anti-ribonuclease antibody binds to one or more of RNase A, a member of the RNase A family, RNase B, RNase C, RNase 1, RNase T1, RNase T2, RNase L, a member of the RNase H family, a member of the angiogenin RNase family, eosinophil RNase, a micrococcal nuclease, a member of the mammalian ribonuclease 1 family, a member of the ribonuclease 2 family, a messenger RNA ribonuclease, 5'-3' exoribonuclease, 3'-5' exoribonuclease, a decapping enzyme, a deadenylase, RNase P, RNase III, RNase E, RNase I,I*, RNase HI, RNase HII, RNase M, RNase R, RNase IV, F; RNase P2,O, PIV, PC, RNase N, RNase II, PNPase, RNase D, RNase BN, RNase T, RNase PH, OligoRNase, RNase R, RNase Sa, RNase F1, RNase U2, RNase Ms, or RNase St.

12. The method of claim 10, wherein the first anti-ribonuclease antibody is an anti-RNase A antibody and the second anti-ribonuclease antibody is an anti-RNase 1 antibody.

13. The method of claim 10, wherein the first anti-ribonuclease antibody is an anti-RNase 1 antibody and the second anti-ribonuclease antibody is an anti-RNase T1 antibody.

14. The method of claim 10, wherein the first anti-ribonuclease antibody is an anti-RNase T1 antibody and the second anti-ribonuclease antibody is an anti-RNase A antibody.

15. The method of claim 1, wherein the first anti-nuclease antibody is an anti-deoxyribonuclease antibody.

16. The method of claim 1, wherein the first anti-nuclease antibody binds to S1 nuclease or micrococcal nuclease.

18. The method of claim 1, wherein at least a third anti-nuclease antibody is obtained and admixed with the first and second anti-nuclease antibodies and the composition.

19. The method of claim 18, comprising obtaining at least an anti-RNase A antibody, an anti-RNase 1 antibody, and an anti-RNase T1 antibody and admixing them with the composition.

20. The method of claim 1, further comprising obtaining a nuclease inhibitor and admixing the nuclease inhibitor with the composition wherein the nuclease inhibitor is human placental ribonuclease inhibitor, a bovine ribonuclease inhibitor, a porcine ribonuclease inhibitor, diethyl pyrocarbonate, ethanol, formamide, guanidinium thiocyanate, vanadyl-ribonucleoside complexes, macaloid, sodium dodecyl sulfate, ethylenediamine tetraacetic acid, proteinase K, heparin, hydroxylamine-oxygen-cupric ion, bentonite, ammonium sulfate, dithiothreitol, β-mercaptoethanol, cysteine, dithioerythritol, tris (2-carboxyethyl) phosphene hydrochloride, Mg^{+2}, Mn^{+2}, Zn^{+2}, Fe^{+2}, Ca^{+2}, or Cu^{+2}.

21. The method of claim 20, wherein the nuclease inhibitor is human placental ribonuclease inhibitor.

23. The method of claim 1, further defined as a method of inhibiting nucleases in the admixture.

37. A method of performing *in vitro* translation comprising obtaining a first nuclease inhibitor, which inhibitor is further defined as a soluble anti-nuclease antibody, and placing the anti-nuclease antibody in an *in vitro* translation reaction.

38. The method of claim 37, wherein the *in vitro* translation reaction comprises at least one nuclease.

39. The method of claim 37, wherein the *in vitro* translation reaction comprises RNA.

40. The method of claim 37, wherein the *in vitro* translation reaction is further defined as a transcription/translation reaction.

41. The method of claim 40, wherein the *in vitro* translation reaction comprises both DNA and RNA.

42. The method of claim 37, wherein the anti-nuclease antibody is a anti-ribonuclease antibody.

43. The method of claim 37, wherein the anti-nuclease antibody is an anti-deoxyribonuclease antibody.

44. The method of claim 37, wherein the anti-nuclease antibody binds to S1 nuclease or micrococcal nuclease.

45. The method of claim 37, further comprising obtaining a second nuclease inhibitor and placing the second nuclease inhibitor in the *in vitro* translation reaction.

46. The method of claim 45, further defined as comprising obtaining a nuclease inhibitor cocktail comprising at least the anti-nuclease antibody and the second nuclease inhibitor and placing the cocktail in the *in vitro* translation reaction.

47. The method of claim 45, wherein the second nuclease inhibitor is a second anti-nuclease antibody.

48. The method of claim 45, wherein the second nuclease inhibitor is human placental ribonuclease inhibitor, a bovine ribonuclease inhibitor, a porcine ribonuclease inhibitor, diethyl pyrocarbonate, ethanol, formamide, guanidinium thiocyanate, vanadyl-ribonucleoside complexes, macaloid, sodium dodecyl sulfate, ethylenediamine tetraacetic acid, proteinase K,

heparin, hydroxylamine-oxygen-cupric ion, bentonite, ammonium sulfate, dithiothreitol, β-mercaptoethanol, cysteine, dithioerythritol, tris (2-carboxyethyl) phosphene hydrochloride, Mg^{+2}, Mn^{+2}, Zn^{+2}, Fe^{+2}, Ca^{+2}, or Cu^{+2}.

49. The method of claim 37, further defined as obtaining a lysate and employing the lysate in the *in vitro* translation reaction.

51. The method of claim 18, wherein the third anti-nuclease antibody binds to one or more of RNase A, a member of the RNase A family, RNase B, RNase C, RNase 1, RNase T1, RNase T2, RNase L, a member of the RNase H family, a member of the angiogenin RNase family, eosinophil RNase, a micrococcal nuclease, a member of the mammalian ribonuclease 1 family, a member of the ribonuclease 2 family, a messenger RNA ribonuclease, 5'-3' exoribonuclease, 3'-5' exoribonuclease, a decapping enzyme, a deadenylase, RNase P, RNase III, RNase E, RNase I,I*, RNase HI, RNase HII, RNase M, RNase R, RNase IV, F; RNase P2,O, PIV, PC, RNase N, RNase II, PNPase, RNase D, RNase BN, RNase T, RNase PH, OligoRNase, RNase R, RNase Sa, RNase F1, RNase U2, RNase Ms, or RNase St.

52. The method of claim 47, further comprising obtaining at least a third anti-nuclease antibody and placing the at least a third anti-nuclease antibody in the in vitro translation reaction.

53. The method of claim 52, wherein the third anti-nuclease antibody binds to one or more of RNase A, a member of the RNase A family, RNase B, RNase C, RNase 1, RNase T1, RNase T2, RNase L, a member of the RNase H family, a member of the angiogenin RNase family, eosinophil RNase, a micrococcal nuclease, a member of the mammalian ribonuclease 1 family, a member of the ribonuclease 2 family, a messenger RNA ribonuclease, 5'-3' exoribonuclease, 3'-5' exoribonuclease, a decapping enzyme, a deadenylase, RNase P, RNase III, RNase E, RNase I,I*, RNase HI, RNase HII, RNase M, RNase R, RNase IV, F; RNase P2,O, PIV, PC, RNase N, RNase II, PNPase, RNase D, RNase BN, RNase T, RNase PH, OligoRNase, RNase R, RNase Sa, RNase F1, RNase U2, RNase Ms, or RNase St.

54. The method of claim 52, wherein the at least a first anti-ribonuclease antibody is an anti-RNase A antibody, the at least a second anti-ribonuclease antibody is an anti-RNase 1 antibody, and the at least a third anti-ribonuclease antibody is an anti-RNase T1 antibody.

55. The method of claim 5, wherein the RNA is produced in the admixture.

56. A method comprising:

a) obtaining an anti-RNase antibody that binds to one or more members of the RNase A family;

b) obtaining an anti-RNase T1 antibody;

c) obtaining an anti-RNase 1 antibody;

d) obtaining a composition; and

e) admixing the anti-RNase antibodies and the composition to form an admixture;

wherein RNases that may be present in the admixture are inhibited.

57. The method of claim 56, wherein admixing is further defined as comprising mixing the anti-RNase antibodies to form a nuclease inhibitor cocktail and mixing the nuclease inhibitor cocktail with the composition.

58. The method of claim 56, wherein obtaining the anti-RNase antibodies comprises obtaining an RNase inhibitor cocktail comprising the anti-RNase antibodies.

59. The method of claim 56, wherein the admixture comprises at least one nuclease.

60. The method of claim 56, wherein the admixture comprises RNA.

61. The method of claim 56, wherein the admixture is further defined as an *in vitro* translation reaction mixture, a transcription reaction mixture, a reverse transcription reaction mixture, or a coupled transcription/translation reaction mixture.

62. The method of claim 56, wherein the composition is a reagent used in molecular biology.

63. The method of claim 56, wherein at least one of the anti-RNase antibodies is a polyclonal antibody.

64. The method of claim 56, further comprising obtaining a nuclease inhibitor and admixing the nuclease inhibitor with the composition wherein the nuclease inhibitor is human placental ribonuclease inhibitor, a bovine ribonuclease inhibitor, a porcine ribonuclease inhibitor, diethyl pyrocarbonate, ethanol, formamide, guanidinium thiocyanate, vanadyl-ribonucleoside complexes, macaloid, sodium dodecyl sulfate, ethylenediamine tetraacetic acid, proteinase K, heparin, hydroxylamine-oxygen-cupric ion, bentonite, ammonium sulfate, dithiothreitol, β-mercaptoethanol, cysteine, dithioerythritol, tris (2-carboxyethyl) phosphene hydrochloride, Mg^{+2}, Mn^{+2}, Zn^{+2}, Fe^{+2}, Ca^{+2}, or Cu^{+2}.

65. The method of claim 64, wherein the nuclease inhibitor is human placental ribonuclease inhibitor.

66. The method of claim 56, further defined as a method of inhibiting nucleases in the admixture.

Appendix C: Urbain, *et al.* (1977) [Abstract only].

Proc Natl Acad Sci U S A 1977 Nov;74(11):5126-30

Idiotypic regulation of the immune system by the induction of antibodies against anti-idiotypic antibodies.

Urbain J, Wikler M, Franssen JD, Collignon C.

Anticarbohydrate antibodies (Ab1) were isolated from a rabbit hyperimmunized with Micrococcus lysodeikticus and injected into allotype-matched rabbits in order to obtain specific anti-iodiotypic antibodies (Ab2). Ab2 was isolated by means of a Sepharose column coupled to the anticarbohydrate antibodies and was injected into two allotype-matched rabbits. These latter rabbits produced specific anti-anti-idiotypic antibodies (Ab3) probably sharing idiotypic specificities with Ab1. However, these Ab3 did not react with the antigenic carbohydrate moiety of bacteria. The two rabbits that had produced Ab3 were then immunized with M. lysodeikticus and synthesized anticarbohydrate antibodies (Ab1') bearing idiotypic specificities similar to those of Ab1. The immune repertoire which is effectively expressed in one individual depends not only on the antigenic stimulation but also on the previous idiotypic history of the individual. These data support the concept that the immune system is a functional idiotypic network.

Appendix A: Claims marked for amendment

1. (Amended twice) A method comprising:

a) obtaining at least a first soluble anti-nuclease antibody;

b) obtaining at least a second soluble anti-nuclease antibody;

c) obtaining a composition; and

d) admixing the anti-nuclease antibodies and the composition to form an admixture;

wherein nucleases that may be present in the admixture are inhibited.

37. (Amended) A method of performing *in vitro* translation comprising obtaining a first nuclease inhibitor, which inhibitor is further defined as a soluble anti-nuclease antibody, and placing the anti-nuclease antibody in an *in vitro* translation reaction.